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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,068	03/23/2004	Hyun Sung Lim	HT3895 US NA	2647
23906	7590	02/28/2006	EXAMINER CONLEY, FREDRICK C	
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			ART UNIT 3673	PAPER NUMBER

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/807,068

Applicant(s)

LIM ET AL.

Examiner

FREDRICK C. CONLEY

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) is/are withdrawn from consideration.
5) ☐ Claim(s) is/are allowed.
6) ☒ Claim(s) 1-16 is/are rejected.
7) ☐ Claim(s) is/are objected to.
8) ☐ Claim(s) are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01/27/06.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Election/Restrictions

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,489,256 to Kent et al. in view of U.S. Pat. No. 5,506,042 to Ichibori et al.

Claims 1 and 9-16, Kent discloses a high loft flame resistant batting providing fire blocking, comprising a base layer comprising heat resistant fibers; and binder fiber (col. 2 lines 42-50); a resilient layer comprising modacrylic fibers in an amount not to exceed 50 parts by weight and 15 to 25 parts by weight binder material (col. 2 lines 25-30); and thickness of .5 inches or greater (col. 2 lines 35-38). Kent fails to disclose a cellulose and polyester fibers. Ichibori discloses a flame resistant bedding product having a blend of a cellulose fiber that is inherently capable of retaining at least 10 percent of it's fiber weight when heated in air to 700 degrees Celsius at a rate of 20 degrees C per minute and polyester fibers (col. 4 lines 54-65). It would have been obvious for one having ordinary skill in the art at the time of the invention to employ a blend of cellulose and polyester fibers as taught by Ichibori in order to improve the visual attractiveness, feeling, hygroscopic property, washing resistance and durability of the batting (Ichibori et al, column 2 lines 12-16) of Kent. With regards to the base and resilient layers having

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10 to 30 parts by weight heat resistant fibers in the base layer, 35 to 55 parts by weight of a cellulose fiber; 15 to 25 parts by weight binder material; 50 to 85 parts by weight polyester fiber; the base layer comprising 20 to 70 parts by weight; the resilient layer comprising 80 to 30 parts by weight of batting; 20 to 50 parts by weight of modacrylic fibers, 30 to 60 parts by weight polyester fiber it is considered an obvious modification to alter select ranges of various fibers and materials and it would have been obvious for one having ordinary skill in the art at the time of the invention to employ the ranges as stated above in order to provide a composite fabric blend having fire blocking characteristics, superior strength, and end-user comfort.

Claim 2, Kent discloses all of the Applicant's claimed limitations except for the heat resistant fiber comprising an organic fiber. Ichibori discloses a bedding product comprising a heat resistant fiber that is inherently capable of retaining 90 percent of its fiber weight when heated in air to 500 degrees Celsius at a rate of 20 degrees C per minute (col. 4 lines 55-65). It would have been obvious for one having ordinary skill in the art at the time of the invention to employ a natural fiber as taught by Ichibori in order to improve the visual attractiveness, feeling, hygroscopic property, washing resistance and durability of the batting of Kent.

Claims 3-4, wherein the heat resistant fiber comprises a paramid such as polyterphthalamide (Kent, col. 3 lines 13-20).

Claim 6, Kent discloses all of the Applicant's claimed limitations except for the density of 0.33 to 2.0 pounds per cubic foot. It is considered an obvious modification alter the physical characteristics of the batting and it would have been obvious for one having

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ordinary skill in the art at the time of the invention to have a density as stated above in order to provide a resilient batting for the blanket of Kent.

Claim 7, having a basis weight of 8 to 12 ounces per square yard (Kent, col. 2 lines 31-38).

Claim 8, wherein modacrylic fibers are present in the resilient layer in the amount of 20 to 50 parts by weight (Kent, col. 2 lines 29-30).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,489,256 to Kent et al. in view of U.S. Pat. No. 5,506,042 to Ichibori et al., and further in view of U.S. Pat. No. 5,645,926 to Horrocks et al.

Claim 5, Kent, as modified, discloses all o the Applicant's claimed limitations except for the cellulose fiber containing a silicic acid. Horrocks discloses fire resistant materials having a viscose fiber containing silicic acid (col. 4 lines 45-53). It would have been obvious for one having ordinary skill in the art at the time of the invention to employ a viscose fiber containing silicic acid as taught by Horrocks (col. 4 lines 45-54) in order to provide an inorganic reinforcement to the char-bonded structure during charring.

Response to Arguments

Applicant's arguments filed 12/07/05 have been fully considered but they are not persuasive.

In response to applicant's argument that the batting of the present invention is designed and has specific use in a mattress construction, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Furthermore, the Applicant's claims fail to recite any other structural elements that form a mattress aside from the batting. A mattress is interpreted as a pad or heavy cloth used as or on a bed thus the article taught by Kent is capable of being employed as a mattress. The Applicant relies on broad structural limitations that fail to clearly distinguish the present invention over the prior art of record. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Kent and Ichibori

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disclose flame retardant bedding articles and the combination of references as a whole would suggest a flame retardant bedding article having a blend of cellulose and polyester fibers thereby improving the attractiveness, feeling, washing resistance, and durability.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FREDRICK C. CONLEY whose telephone number is 571-272-7040. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, PATRICIA L. ENGLE can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FC


PATRICIA L ENGLE
PRIMARY EXAMINER